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# UNITED STATES PATENT AND TRADEMARK OFFICE

# BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte MICHAEL ANTHONY DEAN

Appeal 2009-011376 Application 10/803,551 Technology Center 2100

Before: KRISTEN L. DROESCH, KALYAN K. DESHPANDE, and ERIC B. CHEN, Administrative Patent Judges.

DESHPANDE, Administrative Patent Judge.

DECISION ON APPEAL

## STATEMENT OF CASE<sup>1</sup>

The Appellants seek review under 35 U.S.C. § 134 of a rejection of claims 1-15, the only claims pending in the application on appeal. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

We AFFIRM.

The Appellants invented methods and apparatus for focusing search results on the semantic web. Specification ¶ 0003.

An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below [bracketed matter and some paragraphing added]:

- 1. A method of obtaining search results, comprising:
- [1] parsing statements from at least one Semantic Web structured resource to identify component words;
- [2] constructing an index from said component words, said index relating said component words to said statements;
- [3] comparing said component words to a search term to identify matching words;
- [4] identifying related ones of said statements for said matching words based on said index;
- [5] obtaining predicates, instances, types of said instances, and literal values of said related ones of said statements; and
- [6] summarizing said predicates, instances, types, and literal values for presentation to a user as said search results.

<sup>1</sup> Our decision will make reference to the Appellants' Appeal Brief ("App. Br.," filed September 14, 2007) and Reply Brief ("Reply Br.," filed March 10, 2009), and the Examiner's Answer ("Ans.," mailed January 13, 2009), and Final Rejection ("Final Rej.," mailed April 20, 2007).

#### REFERENCES

The Examiner relies on the following prior art:

Wical US 6.038.560 Mar. 14, 2000

### REJECTIONS

Claims 1-15 stand rejected under 35 U.S.C § 102(b) as being anticipated by Wical. Ans. 3.

#### ISSUE

The issue of whether the Examiner erred in rejecting claims 1-15 under 35 U.S.C. § 102(b) as anticipated by Wical turns on whether Wical describes limitations [1], [2], [5], and [6] of claim 1.

## FACTS PERTINENT TO THE ISSUES

The following enumerated Findings of Fact (FF) are believed to be supported by a preponderance of the evidence.

Facts Related to the Prior Art

Wical

01. Wical is directed to a knowledge base search and retrieval system. Wical 1:6-8. The search and retrieval system includes a knowledge base that links terminology having a lexical, semantic, or usage association. Wical 2:46-48. The search and retrieval system further bridges the gap between the user's view of a description of the information sought and the organization and classification of information in the system. Wical 5:17-21.

02. The search and retrieval system is cataloged with one or more documents and the documents include a compilation of information from any source, including sources in remote locations or on a network. Wical 5:33-38. A content processing system analyzes the thematic, contextual, and stylistic aspects of the documents and generates a document theme vector. Wical 5:44-46. The document theme vector identifies themes for each individual document and the strength of each corresponding theme to the document. Wical 5:46-49. The system further classifies and categorizes each theme using classification criteria and arranges the classifications in a hierarchical structure in a knowledge base. Wical 5:51-61 and 6:7-8. The search and retrieval system further includes learning, scoring, and inference processes. Wical 6:34-40 and 6:62-64. These processes associate conceptual themes to terms in the knowledge base using inferences and learning. Wical 6:45-51 and 7:7-16. For example, the term "Oracle 7" is associated to the concepts of computer software and/or relational databases. Wical 6:39-48. The inferences processing also implies concepts to the themes, e.g. the review of a restaurant may not have the exact term "restaurant" included but the inference processing adds the theme "restaurant" to the document. Wical 7:13-21. The content processing system further includes a lexicon that includes definitional characteristics for a plurality of words. Wical 9:1-3. If the user enters a query using the terms "Legal," "Betting," and "China" the system identifies terminology related to the query terms. Wical 9:36-41.

The system presents the results to the user and further displays the groupings of terminology related to the query term. Wical 9:64-66 and Fig. 3.

#### ANALYSIS

Claims 1-15 rejected under 35 U.S.C § 102(b) as being anticipated by Wical

The Appellants first contend that (1) Wical fails to describe Semantic Web structured resources as required by claims 1, 5, 8, and 12. App. Br. 19-20 and Reply Br. 3-4. We disagree with the Appellants. The Specification fails to provide a specific definition to the term "Semantic Web structured resource." The claims also fail to limit the scope of this term. The Examiner found that a "Semantic Web structured resource" encompasses any structured resource, available on the Internet, that is a compilation of information. Ans. 7. Without any further guidance from the Specification or limitations in the claims, we find that the Examiner's construction of this term is both reasonable and consistent with the Specification.

Wical describes a knowledge base that links terminology having a lexical, semantic, or usage association. FF 01. The knowledge base includes compilations of information in the form of documents that have theme vectors that include terms. FF 02. The documents are available at sources in remote locations or on a network. FF 02. The terms are parsed from the documents and learning, scoring, and inference processes are performed on the terms. FF 02. Applying the Examiner's construction of a "Semantic Web structured resource," the documents are Semantic Web structured resources and terms are parsed from the documents to generate

themes as statements from the document. As such, Wical describes a "Semantic Web structured resource." The Appellants further argue that Wical's description of the analysis of the semantic, contextual, and stylistic aspects of documents renders Semantic Web structured resources unnecessary (App. Br. 19), but fail to provide any rationale to distinguish the claimed invention from Wical's description of the analysis of the documents using the learning, scoring, and inference processing. As such, the Appellants' arguments are not found to be persuasive.

The Appellants also contend that (2) Wical fails to describe parsing statements to identify component words, as required by claims 1, 5, 8, and 12. App. Br. 20-22 and Reply Br. 4-6. The Appellants specifically argue that the claimed invention requires a first one-to-many relationship between a structured resource and its associated statements and a second one-to-many relationship between a single statement and its associated component words, whereas Wical at most describes a one-to-one relationship between documents and their associated themes. App. Br. 21. We disagree with the Appellants. The claims only require parsing statements from a structured resource and identifying component words from the statements. The claims do not specifically require a one-to-many relationship between the structured resource, statements, or component words. As such, this argument is not found to be persuasive. Furthermore, Wical describes learning, scoring, and inference processes that are used to analyze the content of documents. FF 02. As discussed *supra*, terms are parsed from the content of the documents to generate themes for the documents and the parsing of these terms is functionally the same as statements. The themes developed for each document and the organization and categorization of the themes are

component words that are identified from the statements. For example, Wical describes that the term of "Oracle 7" is associated to component words of computer software or relational databases. FF 02. That is, the terms computer software and relational databases are components words associated to the statement of "Oracle 7." As such, Wical describes identifying component words from the statements. Since each document has multiple themes associated to it and the processing of the document adds additional terms to themes, Wical describes a one-to-many relationship between the structured resource, statements, and component words.

The Appellants additionally contend that (3) Wical fails to describe an index relating component words to statements, as required by claims 1, 5, 8, and 12. App. Br. 22-23. We disagree with the Appellants. Wical describes categorizing and classifying the themes of documents and arranging the classifications in a hierarchical structure in a knowledge base. FF 02. As discussed *supra*, the themes of a document are component words and the themes are developed from the content of the document or statements. As such, this categorization, classification, and organization of themes in a hierarchical format in a knowledge base is the same as an index relating component words to statements.

The Appellants further contend that (4) Wical fails to describe obtaining predicates, instances, types of instances, and literal values, as required by claims 1, 6, 8, and 12. App. Br. 23-24 and Reply Br. 7-9. We disagree with the Appellants. Appellants' Specification discloses that a predicate encompasses a named property in a statement, an instance encompasses the subject of a statement, and the type of instance encompasses the type of subject. Specification ¶ 0024. Wical describes

learning, scoring, and inference processes that generate component words for a query. FF 02. For example, for a query including "Legal," "Betting," and "China," the system generates subjects for each of the terms, such as "Government," "Casino," and "Asia" and an overall subject, such as "Gaming Industry." Wical Fig. 3. As such, Wical describes predicates and instances. These subjects are also categorized by the type of subject or type of instance. FF 02 and Fig. 3. Wical further describes that there is a literal value associated. Wical Fig. 3. For example, Wical associates the literal value of "2" with "Gaming Industry." Wical Fig. 3. As such, Wical describes obtaining predicates, instances, types of instances, and literal values.

The Appellants also contend that (5) Wical fails to describe presenting gathered statements for parsing, as required by claims 3, 5, 10, and 14. App. Br. 25-26 and Reply Br. 9-11. We disagree with the Appellants. This argument is similar to the argument *supra* regarding Wical's description of parsing statements to identify component words. As such, we find this argument unpersuasive for the same reasons discussed *supra*.

The Appellants additionally contend that (6) Wical fails to describe arranging the predicates, instances, types, and literal values into one or more graphical representations, as per claims 2, 4, 7, 9, 11, 13, and 15. App. Br. 26-27 and Reply Br. 11-12. The Appellants specifically argue that at most Wical describes two of the four values requiring graphical representation. App. Br. 27. We disagree with the Appellants. As discussed *supra*, Wical describes obtaining the predicates, instances, type of instances, and literal values and Fig. 3 displays four values that are presented to a user. These values include the predicate ("Legal, Betting, China"), instances

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("Government, Casino, Asia", "Patents, Slot Machines, Japan", "Crime, Wagering, China"), types of instances ("Gaming Industry", "Patent Law") and a literal value (2, 4, 2, 1). FF 02. As such, Wical describes arranging the predicates, instances, types, and literal values into one or more graphical representations and the Appellants' argument is not found to be persuasive.

## CONCLUSIONS OF LAW

The Examiner did not err in rejecting claims 1-15 under 35 U.S.C. § 102(b) as anticipated by Wical.

#### DECISION

To summarize, our decision is as follows:

 The rejection of claims 1-15 under 35 U.S.C. § 102(b) as anticipated by Wical is sustained.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2009).

## AFFIRMED

msc